Amendments to the Claims

1.   (Currently Amended) A method for finding a region of high importance in a video, the video including a plurality of video frames having pixels, wherein the video is regarded as a three dimensional volume in a x-y-t space, the t-component of the x-y-t space representing a time axis, comprising:

determining a kinetic energy for each pixel within the video;

finding regions of interest;

assigning pixel values to the pixels within the regions of interest within the video based on the kinetic energy of each pixel;

constructing groups from the pixels having pixel values; and

merging pixel groups to generate regions of high importance, wherein each region of high importance comprises a predetermined three-dimensional shape, the predetermined three-dimensional shape having a three dimensional volume in the x-y-t space.

2.   (Cancelled)

3.   (Currently Amended) The method of claim 2 claim 1 wherein the average kinetic energy for each pixel is determined using pixel luminance values.

4.   (Currently Amended) The method of claim 1 wherein assigning pixel values includes:

assigning each pixel a magnitude value within a predetermined range.

5.   (Currently Amended) The method of claim 4 wherein the range is zero to one, each pixel assigned a magnitude value of one if it has a higher than average magnitude kinetic energy.

6.   (Original) The method of claim 1 wherein assigning pixel values includes:

quantizing the pixel values as either having a value of zero or one.

7.   (Currently Amended) The method of claim 1 wherein constructing groups includes:

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forming a group of neighboring pixels that have a ~~magnitude~~ <u>kinetic energy</u> within a first range.

8.   (Original) The method of claim 7 wherein neighboring pixels are within 1 pixel from each other.

9.   (Currently Amended) The method of claim 7 wherein the first range is a higher than average ~~magnitude~~ <u>kinetic energy</u>.

10.   (Cancelled)

11.   (Currently Amended) The method of ~~claim 10~~ <u>claim 1</u> wherein the predetermined three dimensional shape is a ~~rectangle~~ <u>box having rectangular sides</u>.

12.   (Currently Amended) The method of ~~claim 10~~ <u>claim 1</u> wherein merging pixel groups includes:

merging groups of pixels that meet a minimum energy density threshold.

13.   (Currently Amended) The method of ~~claim 10~~ <u>claim 1</u> wherein merging pixel groups includes:

merging groups of pixels that meet a minimum volume threshold.

14.   (New) The method of claim 1 wherein the video is segmented into at least one clip.

15.   (New) The method of claim 3 wherein obtaining the kinetic energy comprises calculating the change in luminance between video frames.

16.   (New) The method of claim 15 wherein calculating the change in luminance comprises calculating the change in luminance between video frames in the t-component of the x-y-t space.

17.   (New) The method of claim 15 wherein calculating the change in luminance comprises calculating the change in luminance for each pixel using all said x-y-t components of the x-y-t space.

18.   (New) The method of claim 1 wherein the kinetic energy determined for each pixel comprises a residual motion velocity.

19.   (New) A method for finding a region of high importance in a video, the video including a plurality of video frames having pixels, wherein the video is regarded as a three dimensional volume in a x-y-t space, the t-component of the x-y-t space representing a time axis, comprising:

segmenting the video into at least one video clip;

determining a kinetic energy for each pixel within each video clip, wherein the kinetic energy is determined using pixel luminance values;

assigning pixel values to each pixel, wherein each pixel having a higher than average kinetic energy for a particular clip is assigned a value of one and the remaining pixels are assigned a value of zero;

constructing groups from pixels having a value of one, wherein the pixels having a value of one are grouped together if they are within one pixel from each other; and

merging pixel groups having a minimum energy density threshold and a minimum volume threshold together to generate regions of high importance, wherein each region of high importance is box-shaped having rectangular sides, each region of high importance having a three dimensional volume in the x-y-t space.